1	2	3	4
25.	Sweden	3.82	6139
26.	United Kingdom	1.80	3033
27.	United States	2.61	4651
28.	Venezuela	0.23	86

Source: UIS, UNESCO

World Development Indicators

The World Bank Research and Development Statistics at a Glance, DST.

Low investment in Science and Technology R&D

384. SHRI N.R. GOVINDARAJAR: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether the investment in our country for Science and Technology Research and Development is very low as compared to other developing countries;

(b) if so, the details thereof;

(c) whether the number of Scientific Research papers in India in the past ten years has increased from 11,000 to 19,000 whereas the number in China during the same period has jumped from 10,000 to 55,000;

(d) if so, the details thereof;

(e) whether the CSIR, largest Research organization is considering to allow its scientists who own patents to float private companies; and

(f) if so, the details thereof?

THE MINISTER OF SCIENCE AND TECHNOLOGY (SHRI KAPIL SIBAL): (a) and (b) According to the available official statistics, the expenditure on Research and Development (R&D) as percentage of Gross Domestic Product (GDP) in India is 0.88%, which is higher as compared to most of the developing countries excepting China where it is 1.42%.

(c) and (d) As per the Science Citation Index (SCI) database, the number of Scientific Research papers in India increased from 11067 (in 1997) to 22215 (in 2007). Where as in China, the research papers during the same period increased from 12632 (in 1997) to 67433 (in 2007).

(e) and (f) Yes Sir, the CSIR proposal envisages equity participation of inventors in private companies.

Steps to enhance the strength of scientists

385. SHRI MOINUL HASSAN: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether Government is aware that as per the Research and Development statistics 2004-05, the number of scientists per million people in India is only 110 and per capita spending on R&D is $3.53 which is far below than many other countries in Asia; and

(b) if so, what steps have been taken to enhance the strength of scientists and per capita R&D expenditure in India?

THE MINISTER OF SCIENCE AND TECHNOLOGY (SHRI KAPIL SIBAL): (a) According to the latest R&D Statistics 2007-08, the number of scientists per million people in India is 140 and per capita spending on R&D is US $ 5.90 which is ahead of most of the Asian countries excepting China, Japan and Korea.

(b) The Government have taken various steps to enhance per capita R&D expenditure in India and attract scientific talent for research. These measures include higher allocation for scientific research from Plan to Plan, setting up of new institutions for science education and research, creation of centres of excellence and facilities in emerging and frontline areas in academic and national institutes, induction of new and attractive fellowships such as INSPIRE, BOYSCAST etc., strengthening infrastructure for R&D in universities, offering attractive salary packages along with incentives, encouraging public-private R&D partnerships, national awards for outstanding R&D etc. Accordingly, the Government have enhanced Eleventh plan allocation for Scientific Departments to Rs.75,304.00 crores from Rs. 25,301.35 crores during Tenth Plan.

Use of obsolete technology by Indian industries

†386. SHRI LALIT KISHORE CHATURVEDI: Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether it is a fact that majority of the industries functional in India are not able to withstand competition in the International market due to outdated and obsolete technology used by them;

(b) whether it is also a fact that imported technology leads to the international exploitation of labourers and it inhibits the technological advancement in the country;

(c) whether it is also a fact that the development of technology has not remained independent in the name of intellectual property rights and patents;

(d) the percentage of the expenditure incurred on research and development in India; and

(e) the outcomes of these in the last decade?

THE MINISTER OF SCIENCE AND TECHNOLOGY (SHRI KAPIL SIBAL): (a) It is true that majority of industries functioning in India, particularly in the SME sector are unable to withstand competition in the international market due to outdated and obsolete technology used by them. However, many industries in the public as well as the private sector have developed manufacturing technologies, indigenously or through adaptation of imported technology for competing successfully in the international market.

†Original notice of the question was received in Hindi.